

Cluster approach to the structure of heavy nuclei

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Abstract

© Published under licence by IOP Publishing Ltd. We developed a cluster model which allows to take into account both shape deformation parameters and cluster degrees of freedom. The important ingredient of the model is the dinuclear system concept in which the wave function of the nucleus is treated as a superposition of a mononucleus and two-cluster configurations. The model is applied to describe the multiple negative-parity bands in the deformed actinides.

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